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EXAMINER	
NGUYEN, DUC M	
ART UNIT	PAPER NUMBER
2618	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/539,316	VAN SINDEREN ET AL.	
	Examiner	Art Unit	
	DUC M. NGUYEN	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6 and 8* is/are allowed.

6)☒ Claim(s) *1-5, 7, 9, 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to applicant's response filed on 2/6/09. Claims 1-9, 11 are now pending in the present application.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the component that separates audio signal from the video signal must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims **1-5, 7** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claim 1 recites a limitation of "said at least one output signal of said mixer-circuit includes video-image data without audio data and wherein audio data is processed in a signal path that is separate from said at least one output signal of said mixer-circuit", This limitation was **never** described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Here, the specification only describe the signals comprise video/audio information, but **never describe** at least one output signal of mixer-circuit includes video-image data without audio data and wherein audio data is processed in a signal path that is separate from said at least one output signal of said mixer-circuit.

Claim Objections

4. Claims **1-5, 7** are objected to because of the following informalities:

As to claim **1**, "an amplitude detector directly connected to **the mixer**-circuit" should be changed to "an amplitude detector directly connected to **an amplifier-**circuit".

As to claim **2**, "the amplifier-circuits being connected between the polyphase filter and **the amplifier-circuits**" should be changed to "the amplifier-circuits being connected between the polyphase filter and **said mixer-circuits**".

.Appropriate correction is required.

Claim Rejections - 35 USC 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims **9, 11** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Ichihara** (US Pat. Number **7,206,360**) in view of **Olson** (US Patent Number **7,050,778**).

Regarding claim **9, Ichihara** discloses a mixer-system comprising a mixer-circuit with at least two mixers for frequency translating RF signals and comprising an amplitude detector (fig. 4, rectifier 51, 52) for making amplitude corrections (see Figs. 1-2, ref. 19) for at least one output signal of said mixer-circuit, wherein said amplitude corrections are made during said frequency translating of said RF signals (see Figs. 1-

4 and Abstract, note for the **feedback** correction in Fig. 1 which clearly suggest corrections are made during frequency translating), wherein it would have been obvious to one skilled in the art that the receiver in **Ichihara** would be able to receive video information as well as audio information contained in a RF signal, noting that has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations *Ex parte Masham* 2 USPQ2d 1647 1987).

As to the claimed limitation regarding a polyphase filter, it is noted that utilizing a poly-phase filter coupled to a mixer is well known in the art as disclosed by **Olson** (see Fig. 13 regarding poly-phase filter 1318), it would have been obvious to one skilled in the art at the time the invention was made to modify **Ichihara** to utilize a poly-phase filter as claimed, for further improving the performance of the system (i.e, filter distortions caused by amplifier circuits).

Therefore, the claimed limitations are made obvious by **Ichihara** in view of **Olson**.

Regarding claim **11**, the claim is rejected for the same reason as set forth in claim 9 above, where it is clear that the polyphase filter would suppress (filter) the video signal as claimed (intended use). In addition, it would have been obvious to one skilled in the art to couple the polyphase filter either before or after the detector 51, 52 in Ichihara because it has been held that rearranging parts of an invention involved only routine skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950). By coupling the

polyphase filter after the detector 51, 52, it is clear that **Ichihara** as modified would teach the amplifier circuit being connected between the polyphase filter and the at least two mixers.

7. Claim **1** is rejected under 35 U.S.C. 103(a) as being unpatentable by **Ichihara** (US Pat. Number **7,206,360**) in view of **Birleson** et al (US **6,177,964**).

Regarding claim **1**, **Ichihara** discloses a mixer-system comprising a mixer-circuit with at least two mixers for frequency translating RF signals and comprising an amplitude detector (fig. 4, rectifier 51, 52) for making amplitude corrections (see Figs. 1-2, ref. 19) for at least one output signal of said mixer-circuit, wherein said amplitude corrections are made during said frequency translating of said RF signals (see Figs. 1-4 and Abstract, note for the **feedback** correction in Fig. 1), wherein it would have been obvious to one skilled in the art that the receiver in **Ichihara** would be able to receive video information as well as audio information contained in a RF signal.

As to the newly added limitation of at least one output signal of said mixer-circuit includes video-image data without audio data and wherein audio data is processed in a signal path that is separate from said at least one output signal of said mixer-circuit, it is noted that when processing a video signal which comprises image data and audio data, one skilled in the art would recognize that these two components would be separated by a mixer (or frequency translating) in the similar way as disclosed by **Birleson** (see Fig. 1, regarding mixers 121, 122) so that each particular data would be outputted to its respective player (i.e, image data to a display, audio data to a speaker). Therefore,

when receiving a video signal, the receiver in Ichihara would obviously separate the video signal to video image data and audio data as well. By doing so, the mixer for outputting the video image data would not include the audio data as claimed. Since one skilled in the art would recognize that the mixer in Ichihara would applicable and would work equally well to frequency translating a video signal to a video image data, it would have been obvious to one skilled in the art at the time the invention was made to modify Ichihara to provide a video signal to the mixer, thereby frequency translating a video signal to a video image data as claimed, in order to display the image data on a display.

Therefore, the claimed limitations are made obvious by **Ichihara** in view of **Birleson**.

8. Claims **2-5** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Ichihara** in view of **Birleson** and further in view of **Olson** (US **7,050,778**).

Regarding claim **2,** the claim is rejected for the same reason as set forth in claim 1 above. In addition, **Ichihara** would teach said amplitude detector comprises at least two inputs coupled to at least two outputs of said mixer-circuit and at least one output coupled to at least one control input of said mixer-circuit, with said mixer-circuit further comprising at least two amplifier-circuits coupled to said mixers for amplifying mixer signals, with at least one of said amplifier-circuits being coupled to said control input for receiving a control signal for controlling a gain of said amplifier-circuit as claimed (see Figs. 1-2 and their related disclosure).

As to the claimed limitation regarding a polyphase filter, it is noted that utilizing a poly-phase filter coupled to a mixer is well known in the art as disclosed by **Olson** (see Fig. 13 regarding poly-phase filter 1318), it would have been obvious to one skilled in the art at the time the invention was made to modify **Ichihara** to utilize a poly-phase filter as claimed, for further improving the performance of the system (i.e, filter distortions caused by amplifier circuits). Note that it would have been obvious to couple the polyphase filter either before or after the detector 51, 52 in Ichihara because it has been held that rearranging parts of an invention involved only routine skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950).

Regarding claim **3,** the claim is rejected for the same reason as set forth in claim 2 above. In addition, **Ichihara** would teach said amplitude detector comprises at least two level detectors each comprising an output coupled to an input of an amplifier (see Figs. 1-2, 4 and their related disclosure).

Regarding claim **4,** the claim is rejected for the same reason as set forth in claim 2 above. In addition, **Ichihara** would teach said mixer-system comprises at least one further amplitude detector per amplifier-circuit of which further amplitude detector at least one input is coupled to at least one output of said amplifier-circuit and of which further amplitude detector at least one output is coupled to said amplifier-circuit for controlling a gain of said amplifier-circuit for making common-mode corrections as claimed (see Figs. 1-2 and their related disclosure), wherein it would have been obvious to one skilled in the art to utilize a common mode as an alternative of design choice.

Regarding claim **5,** the claim is rejected for the same reason as set forth in claim 4 above. In addition, **Ichihara** would teach said farther amplitude detector comprises at least two level detectors with inputs of said level detectors being coupled to outputs of said amplifier-circuit and with outputs of said level detectors being coupled to inputs of an amplifier as claimed (see Figs. 1-2 and their related disclosure).

9. Claim **7** is rejected under 35 U.S.C. 103(a) as being unpatentable by **Ichihara** in view of **Birleson** and **Olson** and further in view of **Leenaert** (US Patent Number **6,999,745**).

Regarding claim **7**, the claim is rejected for the same reason as set forth in claim 2 above. However, Ichihara fails to teach a variable resistor for adjusting the gain of the amplifier. However, **Leenaerts** teaches a variable amplifier wherein a variable resistor is used for adjusting the gain of the amplifier (see Fig. 2, col. 4, lines 50-60 regarding variable gain 30 and controllable resistor R). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize an adjustable resistor as claimed as an alternative of design choice (i.e, cost saving), for adjusting the gain of the variable amplifier.

Allowable Subject Matter

10. Claims **6, 8** are allowed.

Response to Arguments

11. Applicant's arguments filed 2/6/09 have been fully considered but they are not persuasive.

In the Remark, Applicant contends that

The drawing objections and related Section 112(1) rejections ignore the plain language in Applicant's specification and further contradict the Examiner's own statements, in the Final Office Action, that the limitations upon which the rejections are based (a mixer that separates audio and video signals) "would be obvious" to one of skill in the art. The objections and Section 112(1) rejections are accordingly untenable. The prior art rejections are also improper because the Office Action has not shown explicit correspondence to the limitations upon which the Section 112(1) are (erroneously) based, in apparently relying upon the assertion that such limitations are not supported. The prior art rejections are further improper because the Examiner has erroneously interpreted the timing and function of the cited amplitude corrections, which occur after (rather than during) modulation, and because the primary reference accordingly teaches away from the proposed combination. The following addresses these matters in greater detail.

The Final Office Action dated October 6, 2008 indicated that: claims 6 and 8 are allowed; claims 1-5 and 7 stand rejected under 35 U.S.C. § 112(1); claim 10 stands rejected under 35 U.S.C. § 103(a) over the Ichihara reference (U.S. Patent No. 7,206,360); claims 1- 5 stand rejected under 35 U.S.C. § 103 (a) over the Ichihara reference in view of the Birleson reference (U.S. Patent No. 6,177,964); claim 7 stands rejected under 35 U.S.C. § 103(a) over the Ichihara reference in view of the Birleson reference and in further view of the Leenaert reference (U.S. Patent No. 6,999,745); claim 9 stands rejected under 35 U.S.C.

§ 103(a) over the Ichihara reference in view of the Birleson reference and further in view of the Olson reference (U.S. Patent No. 7,050,778); and the drawings stand objected to. Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action.

In response to the objection to the drawings (and as relevant to the Section 112(1) rejections discussed below), Applicant submits that a mixer system that provides the audio signal from the video signal are illustrated in the Figures in a manner that is clear and further consistent with a basic understanding level of one of skill in the art. Moreover, this is also consistent with the Examiner's own indication that "it is noted that when processing a video signal which comprises image data and audio data, one skilled in the art would recognize that these two components would be separated by a mixer..." (see page 5 of the Final Office Action). Accordingly, the Office Action has directly **contradicted** itself by first asserting that the described mixer circuit cannot perform separation functions (in the drawing objections and Section 112(1) rejections), and later asserting that such functions are not only performed by a mixer, but that such functions are obvious to one of skill in the art (in the Section 103 rejection). Based upon this contradiction, the assertion that the exemplary mixer circuits shown in the drawings do not support the claims is untenable. Applicant therefore incorporates the responses of record regarding these objections, and has attempted to further assist the Examiner's understanding by addressing the questions posed in the Advisory Action with the following discussion.

In response, the examiner asserts that the Office Action does not contradict itself by the objection to the drawing, 112 first rejection and 103 rejection. Specifically, the Office Action is made to treat the claimed limitations (separation of audio and video signal) as both non-obvious and obvious features as follow,

a- for non-obvious case: If the separation of audio and video signal feature is a non-obvious feature over cited prior art as alleged by Applicant, then this feature should be clearly described by the specification and should be supported by a drawing. The objection to the drawing and the 112 first rejection would apply to this non-obvious case.

b- for obvious case: If the separation of audio and video signal feature is just an obvious feature that does not require a drawing or description, then the 103 rejection would apply to this obvious case.

Applicant further contends that

Regarding the Examiner's questions about which function would separate audio and video signals, Applicant again refers the Examiner back to the Office Action itself, in which the Examiner has indicated that mixers perform these functions. Applicant further refers the Examiner to exemplary paragraph 0041 of Applicant's specification (the U.S.P.T.O.'s published version), which describes using two mixers/multipliers with a local oscillator signal, followed by one or more polyphase filters as an exemplary manner in which to provide such outputs. Paragraph 0041 also describes alternate embodiments directed to high-suppression using a full complex mixer. That is, the mixer circuits as represented in the Figures, using an oscillatory signal, translate an input signal into a wanted and an unwanted (i. e., video) signal, that can be suppressed using, for example, a polyphase filter. This is further consistent with the Examiner's own discussion at page 5 of the Office Action, and well-understood operation of frequency translation (and, e.g., subsequent use of polyphase filters). Accordingly, the Examiner's assertion at page 3 of the Advisory Action that the signal would need to be split "before inputting to the mixers" is contrary to the Examiner's own indication and to Applicant's specification, as it is the mixers that generate the wanted and unwanted signals. Applicant fails to understand what further explanation the Examiner would desire. This is further consistent with the discussion of various related implementations of the claimed invention at paragraph 0039, with different audio and video type applications. Applicant submits that the objections to the drawings are thus improper and should be removed. Should the Examiner require further clarification, Applicant invites a telephone call to the undersigned.

In response, the examiner asserts that para [0041] describes each mixer would perform a frequency translation that would produce a wanted signal (an IF or baseband signal) and an unwanted signal (an image frequency signal), this is well known in the art. The specification neither describe such wanted signal is the video signal or audio signal nor the unwanted signal is the video signal or audio signal. However, the most

critical thing is that the specification **never describe the separation** of video signal and audio signal.

Applicant further contends that

In an effort to facilitate the Examiner's understanding of the claims as may relate to the apparent confusion as discussed above, Applicant has amended the claims to separate limitations and add punctuation for readability. Applicant believes that the scope of the claims is generally consistent with that of the claims, prior to amendment.
Applicant respectfully traverses the rejection of claims 1-5 and 7 under Section 112(1). As explained at length above with reference to Applicant's originally-filed specification, Applicant respectfully submits that the written description requirement has been more than satisfied by way of explicit language and illustrations in Applicant's originally-filed specification, and as consistent with the Examiner's indications of what one of skill in the art would understand. Applicant further notes that word-for-word correspondence is not required by the M.P.E.P. or relevant law, and maintains that the figures, together with the discussion in the specification (see, e.g., paragraphs 0039- 0041), fully support the claim limitations. Applicant respectfully submits that the rejection must be withdrawn.

In response, as stated above, if the separation of audio and video signal feature is a non-obvious feature over prior art as alleged by Applicant, then this feature should be clearly described by the specification and should be supported by a drawing. The objection to the drawing and the 112 first rejection would apply to this non-obvious case. Therefore, if Applicant contends that the separation of video and audio signal is not obvious over prior art in the 103 rejection, Applicant should provide a drawing clearly showing this separation.

Applicant further contends that

Applicant respectfully traverses the Section 103 rejections because the cited Ichihara reference, upon which all rejections rely, does not disclose making amplitude corrections during frequency translation as asserted. While the Office Action has not cited any supporting discussion in the Ichihara reference, it appears that the cited amplitude detector carries out amplitude correction after demodulation (and after further filtering at 5 and 6), rather than during any frequency translation. In fact, the purpose of the Ichihara reference teaches away from correction during demodulation, instead requiring that the amplitude deviation correction be carried out "after orthogonal demodulation" (see column 1 in the "Field of Invention"). Referring to the discussion of FIG. 1 at column 4:61 - 5:26, the cited rectifiers (51, 52) and correction (19) occur after demodulation (at 4) and are carried out on the respective I and Q signals (i. e., after the signals have been filtered). Accordingly, the cited combination of

references does not disclose claim limitations directed to making amplitude corrections during frequency translating, much less doing so with audio and video output signals.

In response, the examiner asserts that Fig. 1 of the specification also shows the detectors (61, 62) and correction (4, 5) occur after demodulation by the mixer 3. Since the specification and Ichihara **both** teach a detector and corrections occur after demodulation by the mixer, **Ichihara** does not teach away from making amplitude corrections during frequency translating as alleged by Applicant. Specifically, the rectifiers (51, 52) in **Ichihara** would read on the claimed "amplitude detector", the VGA 17 would read on the claimed "amplifier circuit", the mixers 32, 33 would read on the claimed "mixer circuit".

Applicant submits that the Section 103 rejections are also improper because the Office Action has provided no reference that teaches or suggests outputting video and audio signals as claimed.

In response to applicant's argument that the reference fails to teaches or suggests outputting video and audio signals as claimed, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Here, the video/audio signal is just an intended use of a RF signal, since receiving a wireless video/audio signal is well known in the art, it would have been obvious to one skilled in the art at the time the invention was made to modify **Ichihara** to configure the receiver to receive a video/audio signal as well because it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art

apparatus **satisfying the claimed structural limitations** *Ex parte Masham* 2 USPQ2d 1647 1987).

Specifically, the Office Action has relied upon the Examiner's opinion of what "one skilled in the art would recognize," without citing any reference that supports this opinion or describes how such functions would be performed. None of the references appear to disclose, teach or suggest limitations directed to making amplitude corrections during frequency translation, in connection with providing a wanted (non-image) signal and wanted signal as claimed.

In response, the examiner asserts that the rectifiers (51, 52) in Ichihara would read on the claimed “amplitude detector”, the VGA 17 would read on the claimed “amplifier circuit”, the mixers 32, 33 would read on the claimed “mixer circuit”. Since the specification and Ichihara **both** teach a detector and corrections occur after demodulation by the mixer, Ichihara would make amplitude corrections during frequency translating as claimed (note for the **feedback** correction in Fig. 1 of Ichihara which clearly suggest corrections are made during frequency translating).

The Section 103 rejections are further improper because the cited Ichihara reference teaches away from making amplitude corrections during frequency translation, and thus teaches away from the proposed combination. As consistent with M.P.E.P. § 2143.01 and KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (U.S. 2007), where a main reference teaches away from the asserted combination of teachings (and accordingly undermines the purpose or operation of the main reference), there is no motivation. As discussed above, the stated purpose of the Ichihara reference is to carry out frequency correction "after orthogonal demodulation." Accordingly, there is no motivation to modify the Ichihara reference to carry out correction during frequency translation because such a modification would undermine this purpose.

In response, the examiner asserts that since the specification and Ichihara **both** teach a detector and correction occur after demodulation by the mixer, Ichihara does not teach away from making amplitude corrections during frequency translating as alleged by Appplicant. Speciffically, the rectifiers (51, 52) in Ichihara would read on the

claimed “amplitude detector”, the VGA 17 would read on the claimed “amplifier circuit”, the mixers 32, 33 would read on the claimed “mixer circuit”.

Applicant further traverses the Section 103 rejections of claims 1-5, 7 and 9 because the Examiner has failed to provide any explanation as to how the Ichihara reference would somehow be modified to include the processing of video data, and no explanation as to how the reference could function accordingly. In short, the Ichihara reference is directed to processing audio data and has no bearing upon processing video data, much less upon the claim limitations directed to generating separate signals from combined audio/video data. The Office Action has provided no explanation as to how Ichihara would be modified to include several frequency stages as suggested, or as to how Ichihara could accordingly function.
In view of the above, the Office Action has accordingly failed to establish a prima facie case of obviousness and the Section 103 rejections should be removed.

In response, the examiner asserts that **Ichihara** as modified in view of **Birleson** would teach the processing of video data (i.e, the input signal to the mixer circuit in **Ichihara** would be a video signal), the mixers 32, 33, the rectifiers 51, 52 and the VGAs 17, 18 would perform the function of making amplitude corrections during said frequency translating. If Applicant contends that the separation of video and audio signal would not obvious over cited prior art in the 103 rejection, Applicant should provide a drawing clearly showing this separation.

As claim 10 has been cancelled, the rejection under U.S.C. § 103(a) is inapplicable.
Applicant believes that new claim 11 is also allowable over the cited references for reasons including those stated above, and further because the cited references fail to teach or suggest limitations directed to a polyphase filter connected to an amplifier circuit of a mixer- circuit, and configured with the mixer-circuit to suppress video data. For instance, as discussed above the Ichihara reference amplifies signals after they have been filtered, specifically to correct deviation between I and Q signals (see, e.g., column 3:42-45 and the Title of the Ichihara reference). Claim 2 has been amended to include similar limitations. Support for these limitations may be found throughout the specification, with exemplary embodiments shown in FIG. 4 and described at paragraphs 0039-0041.

In response, the examiner asserts that **Ichihara** in view of **Olson** would teach a polyphase filter, where one skilled in the art would recognize that the polyphase filter can be coupled either before or after the detector 51, 52 in **Ichihara** because it has been held that rearranging parts of an invention involved only routine skill in the art. *In*

re Japikse, 86 USPQ 70 (CCPA 1950). By coupling the polyphase filter after the detector 51, 52, it is clear that **Ichihara** as modified would teach the amplifier circuit being connected between the polyphase filter and the at least two mixers.

For foregoing reasons, the examiner believes that the pending claims (1-5, 7, 9, 11) are not allowable over the cited prior art.

Conclusion

12. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Nay Maung (Supervisor) whose telephone number is (571) 272-7882.

/Duc M. Nguyen/

Primary Examiner, Art Unit 2618

Mar 12, 2009